

DORSAL FREE GRAFT URETHROPLASTY BY VENTRAL APPROACH

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INTRODUCTION & OBJECTIVES: Urethral strictures affecting both penile and bulbar urethra can be difficult to treat, frequently needing two staged procedures or the use of cutaneous flaps or buccal mucosa grafts. The Barbagli principle requires dissecting the urethra from the cavernous bodies and incising it dorsally. In cases with multiple previous urethrotomies this can be difficult due to periurethral fibrosis. A ventral sagittal approach has been recently described, allowing to place a buccal mucosa graft in a simpler way.

MATERIAL & METHODS: We present a 55-year-old man with multiple previous urethrotomies and a 5 cm stricture affecting bulbar and penile urethra who was referred to us for urethral reconstruction. In this video we show how the ventral sagittal approach to the strictured urethra allows to access the urethral lumen, evaluate the stricture and then incise the urethra dorsally (as it is performed in the Snodgrass technique), dividing the urethral stricture sagittally, and developing a space to place the buccal mucosa graft. After harvesting the graft and placing it on the space developed between the two urethral strips, urethral closure is performed approximating the edges of the first sagittal incision on the urethra.

RESULTS: The urethrogram after 6 months shows the successful repair in this patient, who voids normally.

CONCLUSIONS: This approach allows for a single stage repair of urethral strictures affecting both penile and bulbar urethra and is easy to perform.

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DISTAL URETHRA TRANSPOSITION IN FEMALE PATIENTS WITH CHRONIC UTI ASSOCIATED WITH SEXUAL INTERCOURSE

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INTRODUCTION & OBJECTIVES: Treatment of recurrent lower urinary tract infection in female patients remains controversial. Conventional antimicrobial therapy has limited success in these patients. The purpose of this study is to evaluate the efficacy of distal urethral transposition in the treatment of female patients with symptoms of lower urinary tract infection, which occur mainly after sexual intercourse.

MATERIAL & METHODS: 143 women (mean age 31.5 years) with recurrent lower urinary tract infection and repeated unsuccessful conventional treatment were found to have an intravaginal urethral displacement during vaginal examination by imitation of penile introduction. Standard urological examination revealed endoscopic and laboratory data of chronic urethritis. 91 patients (Group 1) underwent urethral transposition, which has been developed at our department. 52 patients (Group 2) receiving conventional treatment and were served as a controls.

RESULTS: 104 patients from Group 1 (72.6%) showed immediate symptomatic improvement, while 39 (27.4%) required secondary treatment with subsequent improvement in 21 patients. Nine patients showed no improvement. Patients from Group 2 showed poor response on the treatments used.

CONCLUSIONS: Female patients suffering from recurrent lower urinary tract infection should be evaluated with specific emphasize on urethral position. Vaginal ectopy of urethral meatus during sexual intercourse might play an important role in recurrence of their symptoms. Distal urethral transposition could be used in these types of patients and leads to symptomatic improvement in 92% of cases either alone or with secondary treatment. Conventional treatment of chronic infection in these patients is often unsuccessful.

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COMPLEX EPISPADIAS REPAIR: NEW ADVANCES

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INTRODUCTION & OBJECTIVES: Epispadias surgery is very difficult and challenging, particularly if it is combined with other anomalies. We present repair of subcoronal epispadias in a two-year-old boy combined with severe dorsal curvature and concealed penis.

MATERIAL & METHODS: The penile skin incision starts at the border of inner and outer layer of the prepuce. The inner preputial layer remains attached to the glans in order to be later used for reconstruction of the subglanular part of penile body skin. Dissection of corpora cavernosa is started ventrally, close to the urethral spongiosal tissue; in Buck's fascia layer. Distally, each of the corporeal bodies is completely dissected from hemiglanes. It is essential to avoid injury of neurovascular bundles which run lateroventrally into the hemiglanes. Proximal dissection of the corporal body is done up to their attachments to pubic bones. Urethral spongiosum is dissected from the neurovascular bundle. Special attention should be paid to avoid injury and significant bleeding of the spongiosal tissue which is enveloped by immature Buck's fascia. This way, epispadiac penis is completely disassembled into its anatomical parts: completely free left and right corpora cavernosa, urethra and hemiglanes with neurovascular bundles. Severe dorsal chordee caused by longitudinal fibrous cord of the tunica albuginea is repaired using its incision and grafting with inner preputial skin in order to avoid penile shortening. Glans reconstruction starts with dissection of epispadiac urethral plate and tubularized urethroplasty. Glanuloplasty usually comprises reshaping of the glans tissue to achieve its conical appearance. The tips of the corporeal bodies are fixed to the most distal part of the hemiglanes' cap using U-shaped suture technique. At proximal level, each corpora cavernosa is fixed to the skin in order to avoid postoperative retraction of the penis. Urethra is positioned ventrally and fixed in the newly created groove between two joined corpora. Reconstruction of the penile body skin is performed using inner and outer prepuce as well as penile skin.

RESULTS: Repair of epispadiac and concealed penis is successfully completed. Penis is pulled out from its hidden position and straightened.

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SEX REASSIGNMENT SURGERY FOR MALE-TO-FEMALE TRANSSEXUALS: AN UROLOGICAL JOB

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INTRODUCTION & OBJECTIVES: Sex reassignment surgery for male-to-female transsexuals is now coming at the forefront of Urology.

MATERIAL & METHODS: Between December 1994 and June 2003, 93 male transsexuals underwent male-to-female sex reassignment surgery. All patients had been cross-dressing, living as women and receiving estrogens and progesterone for a long time. Patients were at least 23 years old and before surgery each of them underwent a complete psychosexual evaluation. Hormonal therapy was discontinued 1 month before the intervention. The procedure includes bilateral orchiectomy and penectomy and consists of the creation of the urethrostomy, neovagina, labial structures and sensate neoclitoris. To create the neovagina, penile and scrotal skin inversion technique has been adopted. An inflatable silicon vaginal tutor was introduced in the vaginal cavity and was maintained all day long for 8 days. At the end a pressure dressing of elastic adhesive tape was positioned and removed after 72 hours. Time of the procedure was 4 hours. Patients were discharged home on the 9th postoperative day.

RESULTS: Two patients showed partial necrosis of the scrotal flap and in another one there was a minimal bleeding from the neoclitoris that was treated surgically. In the long term, stricture of the neomeatus occurred in 6 patients and was treated with meatotomies. Only two patients developed stenosis of the neovagina, one after three years and the other after one year. A haematoma of the labia majora of the neovagina occurred in one case that resolved spontaneously. One patient developed a right leg muscular contusion (due to the prolonged jack-knife position during operation) which required a fasciotomy of the tendinum musculorum peroneorum communis fascia. 17 patients have been evaluated by a questionnaire after 12 months: the physical and functional results of the surgery were judged to be excellent and the patients were satisfied with the quality of the functional genitalia as well as cosmetic result. Cosmetic and functional appearance of the neoclitoris was that of a normal clitoris. 95% of patients had orgasm.

CONCLUSIONS: Because of the fragility of the anatomical structures considered, for best results we think the urologist is the specialist for sex reassignment surgery.